

MARKED UP VERSION OF CLAIMS

Application Number 10/677,503

WE CLAIM:

1. A system for notifying drivers of emergency vehicles, said system comprising:

a transmitter having a microcontroller, a non-volatile memory, and a logic interface for sending and receiving external signals;

5 a RF generating means in electrical communication with said transmitter ~~transceiver~~;

a radio antenna system and switching means in electrical communication with said transmitter ~~transceiver~~;

10 a power regulation and filtering means in electrical communication with said transmitter ~~transceiver~~;

an external trigger in electrical communication with said transmitter ~~transceiver~~;

a receiver having a microcontroller, a non-volatile memory and a logic interface for sending and receiving external signals;

15 a RF receiving means in electrical communication with said receiver; and

a power regulation and filtering means in electrical communication with said receiver.

2. A system as in claim 1, wherein said non-volatile memory stores a unique serial number and vehicle type code.

3. A system as in claim 2, wherein said vehicle type code is selected from the following group consisting of police vehicles, fire department vehicles,

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emergency medical units, passenger vehicles, motorcycles, sport utility vehicles, trucks, mopeds, or commercial vehicles.

4. A system as in claim 1, wherein said external trigger causes said microcontroller to activate said RF generating means and send data for modulation and transmission.

5. A system as in claim 1, wherein said transmitter's ~~transceiver's~~ said logic interface determines the speed of said emergency vehicle and said microcontroller provides a command to said RF generating means to change the radio energy pattern of transmitted data from omni-directional at speeds under thirty miles per hour, to uni-directional at a speed greater than thirty miles per hour.

6. A system as in claim 1, wherein said power regulation and filtering means supplies between three and seven volts to said logic system.

7. A system as in claim 1, wherein said power regulation and filtering means supplies negative fifteen and fifteen volts to said RF generating means.

8. A system as in claim 1, wherein said receiver's said non-volatile memory stores crash data.

9. A system as in claim 1, further comprising a warning device in communication with receiver's said logic interface.

10. A system as in claim 9, wherein said warning device is selected from the group consisting of audio warning device, visual warning device, vibratory warning device, LED(s), buzzers, or lights with varying tone or flash pattern.

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11. A system as in claim 9, wherein said warning device varies relative to the speed of the approaching emergency vehicle.

12. A system for notifying drivers of emergency vehicles, said system comprising:

5 a transmitter having a microcontroller which dictates a change in the radio energy pattern of transmitted data from omni-directional at speeds under thirty MPH to uni-directional at speeds above thirty MPH, a non-volatile memory storing a unique serial number and vehicle type code, and a logic interface for sending and receiving external signals which determines the speed of the vehicle;

10 a RF generating means in electrical communication with said transmitter ~~transceiver~~;

a radio antenna system and switching means in electrical communication with said transmitter ~~transceiver~~;

15 a power regulation and filtering means in electrical communication with said transmitter which supplies between three and seven volts to said logic system and between negative fifteen and fifteen volts to said RF generating means;

an external trigger in electrical communication with said transmitter which causes said microcontroller to activate said RF generating means and send data for modulation and transmission;

20 a receiver having a microcontroller, a non-volatile memory storing a unique serial number and vehicle type code and a logic interface for sending and receiving external signals connected to a warning device wherein said device varies relative to the speed of the approaching emergency vehicle;

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25 a RF receiving means in electrical communication with said receiver; and

 a power regulation and filtering means in electrical communication with said receiver which supplies between three and seven volts to said logic system and between negative fifteen and fifteen volts to said RF generating means.

13. A system as in claim 12, wherein said vehicle type code is selected from the following group consisting of police vehicles, fire department vehicles, emergency medical units, passenger vehicles, motorcycles, sport utility vehicles, trucks, mopeds, or commercial vehicles.

14. A system as in claim 12, wherein said warning device is selected from the group consisting of audio warning device, visual warning device, vibratory warning device, LED(s), buzzers, or lights with varying tone or flash pattern.

15. A method of manufacturing a system for notifying drivers of emergency vehicles comprising the steps of:

 providing a transmitter having a microcontroller, a non-volatile memory and a logic interface;

5 attaching a RF generating means to said transmitter ~~transceiver~~;

 attaching a radio antenna system and switching means to said transmitter ~~transceiver~~;

 attaching power regulation and filtering means to said transmitter ~~transceiver~~;

10 attaching an external trigger to said transmitter ~~transceiver~~;

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providing a receiver having a microcontroller, a non-volatile memory and a logic interface;

attaching a RF receiving means to said receiver; and

attaching a power regulation and filtering means to said receiver.

16. A method as in claim 15, further comprising the step of storing a unique serial number in said non-volatile memory.

17. A method as in claim 15, further comprising the step of storing a vehicle type code in said non-volatile memory.

18. A method as in claim 15, further comprising the step of said transmitter's said external trigger causing said microcontroller to activate said RF generating means and send data for modulation and transmission.

19. A method as in claim 15, further comprising the step of said transmitter's said logic interface determining the speed of the vehicle and changing the radio energy pattern of said transmitted data from omni-directional at speeds less than thirty MPH to uni-directional at speeds greater than thirty
5 MPH.

20. A method as in claim 15, further comprising the step of supplying between three and seven volts to said logic system.

21. A method as in claim 15, further comprising the step of supplying between negative fifteen and fifteen volts to said RF generating means from said power regulation and filtering means.

22. A method as in claim 15, further comprising the step of storing crash data in said non-volatile memory.

23. A method as in claim 15, further comprising the step of connecting a warning device to said receiver's said logic interface.